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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,827	01/11/2002	Tomoaki Kurosawa	270/164	8082

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EXAMINER	
CHANKONG, DOHM	
ART UNIT	**PAPER NUMBER**
2152	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,827	KUROSAWA ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1> This action is in response to Applicant's amendment. Claims 1-28 have been cancelled. Claim 29 has been added. Claim 29 is presented for further examination.

2> This is a final rejection.

Response to Arguments

3> Applicant's arguments filed 9.21.2005 have been fully considered but they are not persuasive.

Applicant is arguing in substance that (a) the admitted prior art and Harrington fails to teach "the information transmitting apparatus is arranged and constructed to cyclically transmit the blocks of data subdivided from the designated information apparatus in a predetermined sequence when the information transmitting apparatus receives another request to transmit the designated information from another information receiving apparatus prior to transmitting all blocks of data subdivided from the designated information" and (b) no motivation exists to modify the teachings.

In regards to (a), Applicant distinguishes the prior teachings from the claimed invention because the prior art "teaches blocks of data that are cyclically transmitted from a server" and the claimed invention "receives a signal from the server only after the blocks of data have been transmitted from the server" [page 5]. In explaining the distinction, Applicant asserts that the apparatus of the claim "cyclically transmits the blocks of data when the information transmitting apparatus receives another request to transit [sic] the

designated information from another information receiving apparatus ... prior to transmitting all blocks of data."

Examiner interprets the prior art in a different manner than Applicant. It is clear that the admitted prior art discloses several information receiving apparatuses [Figures 5 and 6 «client(1), client(2), client(3)»]. The admitted prior art also clearly discloses that the server (information transmitting apparatus) will begin cyclically transmitting blocks of data to the information receiving apparatus after receiving a request from said information receiving apparatus [Figures 5 and 6 | see Applicant's specification, page 7 «0025, 0035» : where the figure and spec suggest that the information transmitting device begins cyclically transmitting to the information receiving apparatuses [clients] at time t2, after receiving another requests from the third client]. Thus, Examiner respectfully disagrees with Applicant's assertion that the prior art does not read on the claimed limitation. Examiner sets for the claim mapping between the admitted prior art and the claimed invention as follows:

"the information transmitting apparatus [Figure 5 «server»] is arranged and constructed to cyclically transmit the blocks of data subdivided from the designated information apparatus in a predetermined sequence [Figure 5 | pg. 7 «0024, 0025, 0032, 0035] when the information transmitting apparatus receives another request to transmit the designated information from another information receiving apparatus [Figure 5 «REQ2, REQ_3»] prior to transmitting all blocks of data subdivided from the designated information [Figure 5 | pg. 7 «0024, 0032, 0035»]."

Applicant's statement that "the apparatus of claim 29 receives a signal from the server only after the blocks of data have been transmitted from the server" is not persuasive. There

is nothing in the claims that suggest that the apparatus of claim 29 receives the request (signal). According to the claim language, the information transmitting apparatus receives the request (signal), not the "apparatus of claim 29", and there is nothing in the claim language to mandate that the information transmitting apparatus receives a signal only after the blocks of data have transmitted from the information transmitting apparatus. Examiner interprets the limitation as disclosing that the information transmitting apparatus receives another request to transmit the information from another receiving apparatus prior to actually transmitting the blocks of data. The admitted prior art discloses this so Examiner believes the rejections are proper.

In regards to (b), Applicant's arguments that the prior art fails is missing a recited element is addressed in the preceding marks.

Applicant did not address other limitations of new claim 29. As these limitations are substantially the same as now cancelled claim 1, the rejections for those limitations are maintained as well.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4> Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Specifically, claim 29 lacks proper antecedent basis for "the designated information apparatus". It is unclear which apparatus is being referred - the apparatus of claim 29, information transmitting apparatus, the information receiving apparatus.

Claim Rejections - 35 USC § 103

5> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6> Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art by Applicant (See MPEP 2129) in view of Harrington et al. (US 6,289,012).

7> In regards to claim 29 Admitted Prior Art by Applicant discloses an apparatus comprising:

- a first information receiving apparatus (fig. 5- CLIENT (1)) having a first group address (fig. 5 - INF1, Pg 7 lines 1-5),
- a second information receiving apparatus (fig. 5- CLIENT (2)) having a second group address (fig. 5 - INF2, Pg 7 Para [0025] lines 1-3), and
- an information transmitting apparatus (fig. 5 - SERVER) in communication with the first and second information receiving apparatus via a network (Pg 1. [000] lines 1-4, Pg 6 [0023] lines 3-4, Pg 7 [0025] lines 1-2),

- the information transmitting apparatus (fig. 5 – SERVER) being arranged and constructed to
    - (1) transmit via the network two or more blocks of data subdivided from a designated information together with the first group address for the first information receiving apparatus in response to receiving a request to transmit the designated information from the first information receiving apparatus (Pg 7 [0024] lines 1-4),
    - (3) transmit via the network one or more blocks of data already transmitted to the first receiving apparatus with the second group address (Pg 7 [0026] lines 1-4), wherein the first (i.e. Client (1)) and second (Client (2)) information receiving apparatus are further arranged and constructed to send the request to transmit the designated information to the information transmitting apparatus (fig 5-REQ1 dotted arrow toward SERVER, fig. 5-REQ2 dotted line toward SERVER)), receive blocks of data via the network (Solid arrow lines from X1 to X4 a the server to Client (2), Solid arrow lines from X1-X4 at the server to Client (1)) , wherein the group address of the received blocks of data are identical to the respective group addresses (Client(1): Pg.7 [0024] lines 2-4, Client (2):Pg 7 [0026] lines 5-6, and store the received blocks of data in a storage device. Admitted Prior Art by Applicant teaches clients which have storage capability and are thus capable of storing clocks of data received from an information receiving apparatus.

- cyclically transmit the blocks of data subdivided from the designated information apparatus in a predetermined sequence, when the information transmitting apparatus receives another request to transmit the designated information from another information receiving apparatus prior to transmitting all blocks of data subdivided from the designated information (Pg. 7 [0025] lines 1-3, fig. 5-REQST2 dotted line toward server prior to time t2).

Admitted Prior Art by Applicant fails to disclose:

- the information transmitting apparatus (fig. 5 - SERVER) being arranged and constructed to
  - (2) transmit via the network one ore more blocks of data that have not yet been transmitted to the first information receiving apparatus with the first group address and the second group address for the second information receiving apparatus, in response to receiving a request to transmit the designated information from the second information receiving apparatus prior to transmitting all blocks of data, which contain the designated information, to the first information receiving apparatus

Admitted Prior Art by Applicant in fig 5, shows cyclical transmission of subdivided blocks from information apparatus in a predetermined sequence, with the blocks X1 to X4 transmitted to a Client(1) at a time t1 and then the same blocks X1 to X4 transmitted to a

Client (2) an another time t2. "Xn" represents the predetermined sequence in fig. 5, where n = 1 - 4, "n" is the sequence.

8> Harrington et al. discloses a distributed system that concurrently transmits a series of packets (blocks of data) to a plurality of users in response to download requests from users on a network (col. 3 lines 45-53). The packets consist of download items requested by users, which are then divided up in to segments (blocks of data) and then packetized (col. 6 lines 44-47). Furthermore since the item is prepackaged, packets are be copied in any particular order (col. 7 lines 40-54).

Harrington et al. teaches the systems ability to store an item for downloading to a plurality of users using a single memory buffer for the item. The system then transmits the item as a series of packets on demand to each of the plurality of users, without requiring that the download process for each user commence at the same time, or that the same packet be sent at the same time to each of the users. Thus, a great number of concurrent downloads can be supported without a corresponding increase in the amount of memory that would be expected in the limitations of multicasting (col. 1 lines 45-53). In figure 6-8, Harrington et al. discloses the process of sending data blocks to concurrent users 1-3 (col. 6 lines 56-62). A server download manager (fig 5-507) controls the flow of data blocks for each user in a time-share fashion by initiating and controlling copying of download packets to a network communication buffer (fig 5-515, col. 7 lines 15-19). Depending on the number of users making a request for item, the system often switches between users (i.e. first and second users). In this manner different packets of data can be sent to multiple users concurrently without

requiring that multiple copies of the item be made or multiple buffers maintained and concurrent downloading of the same item to multiple users can occur when demanded by the user and not at any prescheduled time as with network multitasking. In this respect, a second user requesting for a download item, some time after a first user has requested the same download item, will receive packets, which are being transmitted to the first use at the same time. In addition, unlike multicasting, one user's problems do not impact download times for other users (col. 7 lines 40-54).

Harrington et al. teaches the user need not acknowledge receipt of each packet and is rather able to wait to the conclusion of a transmission of all the packets to specify which packets did not make it and need to be resent. Without having to a acknowledge receipt of each packet downloading of items occurs faster and imposes less process and memory overheard on the server when downloading concurrently to multiple users (col. 7 lines 55-58). At the end of a transmission the second user is able to determine the missing data blocks by performing a reliability check process as taught by Harrington et al. (fig 14-#1401-1413, fig. 15). During the process a packet identifier/index is read from the packet header (information fig 7-#709, col. 10 lines 61-62) and is used to detect missing blocks of data and prepare request from a server for missing data (Harrington col. 11 lines 26-44) and thus obtain the remaining blocks of data the were previously sent to a first user.

Admitted Prior Art by Applicant and Harrington et al. are analogous because they are from the similar problem solving area, that is reducing processing time and increasing efficiency for transmitting data in a client/server network and are the similar fields of

invention, that is Client/Server communications in a network where data is transmitted and received.

It would be obvious to one of ordinary skill in the art at the time of the invention to modify the Admitted Prior Art by Applicant by transmitting the same blocks of data to a second user who request the same item as a first user and then send the remaining blocks only to a second user, as taught by Harrington et al. in order to eliminate the need for transmitted information to be scheduled and thus allow the transmittal of the same item to multiple users (col. 5 lines 42-44) requesting the information at different times in order to support a computing systems ability, in particular a server's ability, to support greater levels of concurrency when downloading large items, especially when items are being download to users on demand and provide a system that is more scalable in terms of the number of clients that can be supported without significant degradation in performance, and is thus better able to handle unpredictable levels for demand for service (See Harrington et al. col. 3 lines 16-34).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dung C. Dinh
Primary Examiner

DC